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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,552	04/19/2001	Hisashi Ohtani	0756-2296	7555

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WASHINGTON, DC 20004-2128

EXAMINER

RICHARDS, N DREW

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/837,552

Applicant(s)

OHTANI ET AL.

Examiner

N. Drew Richards

Art Unit

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BW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE and IDS filed 11/7/03.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-41, 45, 47, 48 and 55-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30-33, 37-41, 45, 58-63, 65, 67-71 and 74 is/are allowed.
- 6) ☒ Claim(s) 28, 34-36, 47, 48, 55-57, 64, 66 and 73 is/are rejected.
- 7) ☒ Claim(s) 29 and 72 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 29. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 28, 34-36, 47, 48, 55-57, 64, 66 and 73 are rejected under 35

U.S.C. 102(e) as being anticipated by Murade (U.S. Patent No. 6,330,044 B1).

With regard to claim 28, Murade discloses a semiconductor device including a CMOS circuit formed by an n-channel TFT and a p-channel TFT (CMOS with n-channel and p-channel TFT shown in figure 36(B)), wherein an active layer of the n-channel TFT is sandwiched by a first wiring line 7 and a second wiring line 43 through insulating layers 11,12 (figure 36(B), for example), wherein the active layer includes a low concentration impurity region 1d,1e (figure 27(B)) that is in contact with a channel formation region 1c, and wherein the low concentration impurity region is formed to overlap the first wiring line and not to overlap the second wiring line. The specific transistor structure including the low concentration regions is shown in figure 27(B) for example, while the entire CMOS circuit is shown in figure 36(B) for example. In the specification, for example col. 29 lines 62-66, it is disclosed that the complementary TFT's (CMOS) can be formed in the same steps as the pixel TFT. Thus, the structure

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shown in figure 27(B) for the single transistor is disclosed as the same structure for each of the p-channel and n-channel transistors of the CMOS in figure 36(B).

With regard to claim 34, figure 27(B) shows the claimed structure in the pixel TFT where the low concentration impurity region overlaps the first wiring line and not the second wiring line.

With regard to claim 47, the device is one of an active matrix liquid crystal display and an active matrix EL display.

With regard to claim 55, Murade disclose a device having a pixel matrix circuit and a driver circuit formed on a same substrate, wherein each of the pixel TFT in the pixel matrix circuit and an n-channel TFT included in the driver circuit has a structure including an active layer sandwiched by each of a first wiring line and a second wiring line through insulating layers (pixel TFT shown in figure 27(B), n-channel driver TFT shown in figure 36(B)), each of the active layers includes a low concentration impurity region that is in contact with each of channel formation regions, and each of the low concentration impurity regions is formed to overlap each of the first wiring lines and not to overlap each of the second wiring lines. With regard to the limitations of the potentials applied to the wiring lines, these limitations are merely intended use limitations that do not structurally distinguish over the prior art. The device of Murade is capable of having the claimed potentials applied.

With regard to claim 56, the device is an active matrix liquid crystal display device.

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With regard to claims 64, 66 and 73, at least one of the first wiring layer and the second wiring layer is disclosed as containing an element selected from the group of Ta, Ti, W, Mo or Si.

With regard to claim 35, 36, 48 and 57 the limitations of these claims of keeping the first and second wiring lines at certain potentials are intended use limitations that do not structurally distinguish over the prior art. The device of Murade is capable of having the claimed electric potentials applied to the first and second wiring line and thus reads on the claims.

Allowable Subject Matter

3. Claims 30-33, 37-41, 45, 58-63, 65, 67-71 and 74 are allowed.
4. Claims 29 and 72 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter: Prior art of record fails to teach, disclose, or suggest, either alone or in combination, (1) a TFT having an active layer sandwiched by a first wiring line and a second wiring line where the second wiring line has a portion being a laminate of a first conductive layer and a second conductive layer and a portion being a laminate of the first conductive layer, the second conductive layer, and a third conductive layer or (2) a TFT having an active layer sandwiched by a first wiring layer and a second wiring layer,

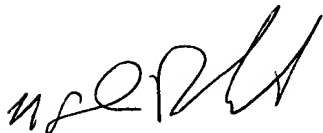
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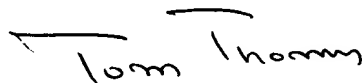
where a low concentration impurity region in contact with the channel overlaps the first wiring line but not the second wiring line, and the first and second wiring line are electrically connected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Drew Richards whose telephone number is (571) 272-1736. The examiner can normally be reached on M-F 8:00-5:30; Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


NDR


Tom Thomas
Supervisory Patent Examiner
Technology Center 2800